

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 July 2005 (14.07.2005)

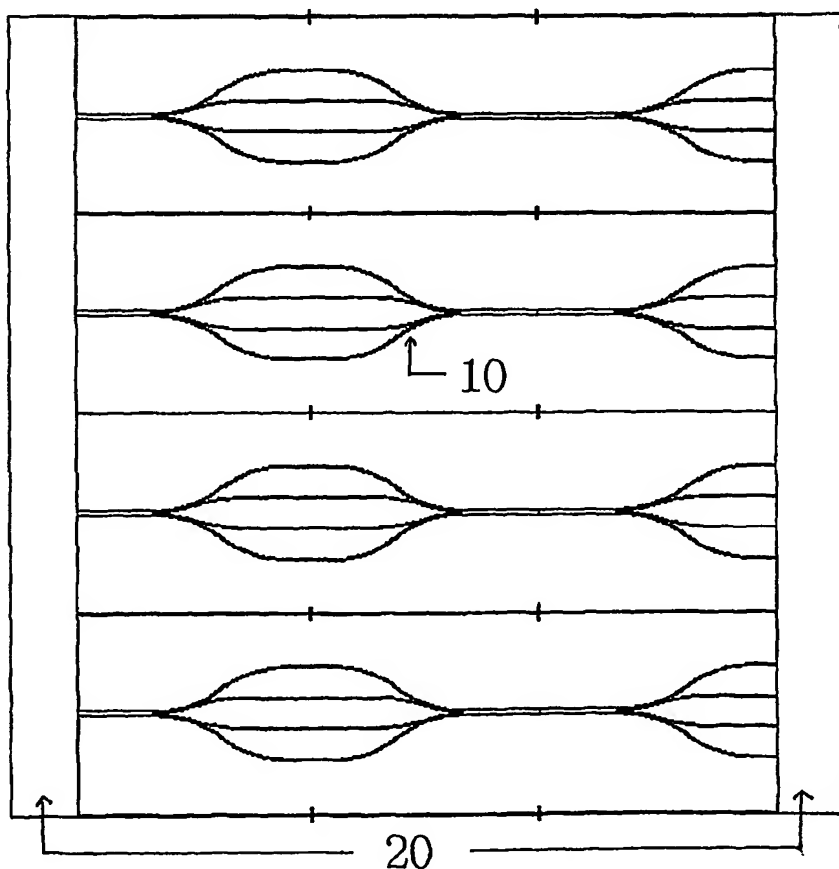
PCT

(10) International Publication Number
WO 2005/064374 A1

- (51) International Patent Classification⁷: **G02B 6/12**
- (21) International Application Number:
PCT/KR2004/000518
- (22) International Filing Date: 12 March 2004 (12.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10-2003-0101171
31 December 2003 (31.12.2003) KR
- (71) Applicant (for all designated States except US): **LUVAN-TIX CO. LTD.** [KR/KR]; #403-2, Moknae-dong, 425-110 Ansan-si, Kyungki-do (KR).
- (72) Inventors; and
(75) Inventors/Applicants (for US only): **KIM, Mal-Soon** [KR/KR]; Seolak Apt. 853-1403, Suri-dong, 435-753 Kunpo-si, Kyungki-do (KR). **YUN, Jung-Woo** [KR/KR]; Sungwon Apt. 104-802, #30, Sanghyun-ri, Suji-eup, 449-843 Yongin-si, Kyungki-do (KR). **OH, Jung-Hyun** [KR/KR]; Lapait Villa 401, #1-43, Bangbae-dong, Seocho-gu, 137-060 Seoul (KR).
- (74) Agents: **JANG, Seongku** et al.; 19th Fl., Kec Building, #275-7, Yangjae-dong, Seocho-ku, 137-130 Seoul (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,

[Continued on next page]

(54) Title: **FABRICATION OF POLYMER WAVEGUIDE USING A MOLD**



(57) Abstract: A polymer waveguide having low optical loss and no lip around a core is prepared by using a mold having a recessed shape formed by assembling at least two waveguide pattern units having predesigned channels together with two band parts such that the channels of the units are interconnected and open to the band parts, and filling the void generated by contacting the mold and a under cladding layer with a photocurable polymeric resin to form a core layer.

WO 2005/064374 A1



PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG).

- (84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.